

REMARKS

The rejection of Claims 1 - 5 and 9 - 11 under 35 U.S.C. §112 for failure to particularly point out and distinctly claim the invention is not understood. In making the rejection, the Examiner says that "it is not clear how applicants will be able to crumple paper by using only one roller, etc." However, that is not what the claims call for.

Claim 1 and the claims which depend from it specifically call for a throat section for urging the edge portions of the paper toward each other and causing them to gather and a roller for pressing the gathered paper to crumple it. What could be clearer? The throat section gathers the paper and the roller presses the gathered paper to complete the crumpling.

Claim 9 and the claims which depend from it call for means for drawing edge portions of the paper together and gathering the paper, and a crumpling roller engagable with the gathered paper. Where is the ambiguity there? Where does it say that the paper is being crumpled by using only one roller?

With this explanation, it should be clear that the rejection is erroneous, and applicant trusts that it will be withdrawn.

The rejection of Claims 1 - 4, 6 - 11 and 13 as being anticipated by Toth (U.S. 6,503,182) is likewise erroneous. In making that rejection, the Examiner has once again failed to recognize what is actually being claimed, and he has compounded that error by reading things into the reference which are not there.

Claim 1 and the claims which depend from it are directed to a dunnage making machine having a specific structure which is not found in Toth. That structure includes a forming bar at the upper end of a post, an arm extending from the side of the post opposite a paper roll, a crumpling head mounted on the arm, and a throat section mounted on the arm between the post and the crumpling head for receiving the paper from the forming bar and urging the edge portions of the paper toward each other and causing them to gather. That combination of elements is neither found in nor even remotely suggested by Toth, and without them Toth does not anticipate.

Claims 2 - 4 depend from Claim 1 and are directed to allowable subject matter for the same reasons as their parent claim. In addition, they further distinguish over Toth in calling for additional elements which are neither found in nor suggested by Toth.

Claim 2, for example, calls a second throat section positioned between the first throat section and the crumpling roller for gathering the central portion of the paper and further gathering the edge portions. The entrance chute 20 of Toth does not meet this limitation. The two pairs of rollers 11, 12 and 13, 14 cited by the Examiner are arranged about the periphery of the chute and define a single rectangular opening, rather than two separate throat sections, one of which receives the paper from a forming bar and urges the edge portions of the paper toward each other and causes them to gather, with the second gathering the central portion of the paper and further gathering the edge portions.

Claim 3 further distinguishes in specifying that the knife comprises a plurality of blades mounted in zig-zag fashion on a mandrel which rotates about an axis with the blades in periodic engagement with the surface of a support roller. The so-called perf gears 18 of Toth do not meet that limitation. They are not knife blades, they are not mounted in zig-zag fashion on a mandrel, and they are not in periodic engagement with the surface of a support roller.

Claim 4 depends from Claim 3 and further distinguishes in specifying that the knife blades have cutting edges with an elliptical profile. Even if the teeth of the perf gears in Toth could somehow be construed as being knife blades, they still would not have the elliptical profile called for by the claim.

Claim 6 and the claims which depend from it are likewise directed to a dunnage making machine having a specific structure which is not found in Toth. That structure includes a forming bar having a pair of curved end sections which are spaced apart by a distance less than the width of the paper so that the edge portions of the paper tend to be rolled toward each other as the paper is drawn across the forming bar, a first throat section having an opening of substantially lesser dimension than the spacing between the end sections of the forming bar for further rolling the edge portions toward each other and gathering them for crumpling, a second throat section having an opening of lesser dimension than the first throat opening for gathering the central portion of the paper and further gathering the edge portions, and a pair of rollers engagable with opposite sides of the paper for drawing the paper over the forming bar and through the throat openings, then pressing the gathered portions together. As noted above, the

devices shown in Toth do not have a forming bar, the two throat sections or rollers for drawing the paper through the throat sections in the specified manner.

Claims 7 - 8 depend from Claim 6 and are directed to allowable subject matter for the same reasons as their parent claim. In addition, they further distinguish over Toth in calling for additional elements which are neither found in nor suggested by Toth.

In that regard, Claim 7 specifies that the rollers are of lesser width than the throat openings and tension only the central portion of the paper as the paper is drawn across the forming bar and through the openings, and Claim 8 calls for knives for perforating the crumpled paper along a serrated line.

Claim 9 is being amended to include the subject matter of Claims 10 and 11 and now distinguishes over Toth in calling for means for feeding paper along a path, means for drawing edge portions of the paper together and gathering the paper as it is fed along the path, a crumpling roller engagable with the gathered paper, a cylindrical mandrel oriented with its axis generally perpendicular to the path of the paper and having at least one flat side which is tangential to the axis, a plurality of blades mounted on the flat surface in zig-zag fashion along a line parallel to the axis for periodic engagement with the paper as the mandrel rotates about its axis, and a support roller rotatable about an axis parallel to the axis of the knife mandrel with a surface which supports the paper for engagement by the knife blades.

Claims 13 depends from Claim 9 and is directed to allowable subject matter for the same reasons as its amended parent claim. In addition, it further distinguishes over Toth in specifying that the knife blades have cutting edges with an elliptical profile.

Claims 5 and 12 have been rejected under 35 U.S.C. §103 as being unpatentable over Toth. Those claims depend from Claims 1 and 9 and are directed to patentable subject matter for the same reasons as their parent claims. In addition, they further distinguish in specifying that the support roller is fabricated of ultra high molecular weight polyethylene.

The Examiner acknowledges that Toth fails to teach the use of ultra high molecular weight polyethylene, but then argues that ultra high molecular weight polyethylene is "old, well known, and available in the art." However, he fails to give any indication whatsoever as to where such a material might be found or what it might be

used for, and he certainly has not cited anything which would suggest its use in a support roller for knife blades as in applicant's invention.

In order to more fully round out the protection to which applicant is believed to be entitled, new Claims 20 and 21 are being added.

Claim 20 is directed to a machine for crumpling paper to make dunnage, and distinguishes over Toth and the other art in calling for a forming element having a pair of curved end sections which are spaced apart by a distance less than the width of the paper so that the edge portions of the paper tend to be rolled toward each other as the paper is drawn across the forming element, a first throat section having an opening of substantially lesser dimension than the spacing between the end sections of the forming element for further rolling the edge portions toward each other and gathering them for crumpling, a second throat section having an opening of lesser dimension than the first throat opening for gathering the central portion of the paper and further gathering the edge portions, and a roller for drawing the paper over the forming element and through the throat openings, then pressing the gathered portions together, with the roller being of lesser width than the throat openings so as to tension only the central portion of the paper as the paper is drawn across the forming element and through the openings.

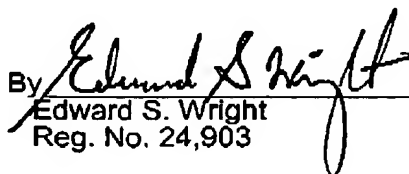
Claim 21 depends from Claim 20 and further calls for knives for perforating the crumpled paper along a serrated line.

In addition to this amendment, applicant is also submitting formal drawings to replace the informal drawings with which the application was filed. Those drawings are being filed by mail with a separate letter to the Office Draftsman.

With this amendment and the submission of the formal drawings, the application should be in condition for allowance.

The Commissioner is authorized to charge any fees which may be required in connection with this amendment, including extension fees, to Deposit Account No. 50-2975, Order No. A-73425.

Respectfully submitted,

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